

REMARKS

We have amended independent claim 1 to include the features recited in dependent claims 2 and 3. We have also amended dependent claim 3 to be independent form.

§ 112, second paragraph rejections

The Examiner rejected claims 1-3, 5-13, and 15-20 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner argues that the phrase, “ a second conductor wound, in hand, over the first conductor” is still indefinite. The Examiner raises two issues:

Does applicant mean that first and second conductors together form a two “in-hand” winding or that the second conductor comprises an “in-hand” winding, i.e., that the second conductor comprises a number of conductors one over the other?

We submit that it is the first of the two alternatives that the Examiner suggests (i.e., the first and second conductors together form a two “in-hand” winding).

Also, it is not clear if the recitation “in-hand” is product-by-process claim terminology, i.e., that the first conductor is placed over the second conductor and then winding them parallel to one another.

The recitation is a characterization of the structure of the windings and like “product-by-process claim terminology would cover embodiments having the same structure and made other ways.

Prior Art Rejections

Independent Claim 1

The Examiner rejected claims 1-3 and 9-11 as being anticipated by Liwschitz-Garik , “Winding Alternating Current Machines, ” (hereafter, Liwschitz). We submit, however, that Liwschitz neither describes nor suggests a stator comprising a second conductor wound, in-hand, over a first conductor, the second conductor electrically isolated from the first conductor along

the length of the conductors, wherein the first conductor has an end electrically connected to an end of the second conductor, as recited in amended claim 1. The Examiner references Liwschitz's Figs. 1-4 and 2-3c as disclosing the structure recited in claim 1. We note, however, that Liwschitz's Fig. 1-4 illustrates a two-layer AC winding in which two separate windings (similar to the windings shown in Fig. 2-3c) are positioned one over the other in an open slot of a pole. However, nowhere does Liwschitz suggest that the two layers have ends that are electrically connected as is required by amended independent claim 1. Fig. 2-3c simply shows individual left-hand and right-hand coils, neither of which are wound in-hand. We submit that for at least this reason, independent claim 1 is patentable over the Liwschitz reference.

Because claims 9 and 10 depend from claim 1, we submit that these claims are patentable for at least the same reasons that claim 1 is patentable.

Because claims 9 and 10 depend from claim 1, we submit that these claims are patentable for at least the same reasons that claim 1 is patentable.

Independent Claim 11

The Examiner also rejected claims 11-13 and 19-20 as being anticipated by Liwschitz. We submit, however, that Liwschitz neither describes nor suggests a method of forming a stator comprising winding, in-hand, a first electrical over a second conductor, the second conductor electrically isolated from the first conductor along the length of the conductors, and electrically connecting an end of the first conductor to an end of the second conductor, as recited in amended claim 11. As stated above, Liwschitz does not describe that this layers are electrically connected together.

Because claims 12, 13, and 19-20 depend from claim 11, we submit that these claims are patentable for at least the same reasons that claim 1 is patentable.

The Examiner also rejected dependent claims 5-8 and 15-18 as being unpatentable over Liwschitz in view of Flick (U.S. 4,427,907), which was cited as teaching racetrack pancake coils. We submit, however, that the Flick patent fails to disclose the feature found to be lacking in the Liwschitz reference (i.e., in-hand windings having first and second conductors electrically connected).

Applicant : Swarn S. Kalsi
Serial No. : 09/632,412
Filed : August 4, 2000
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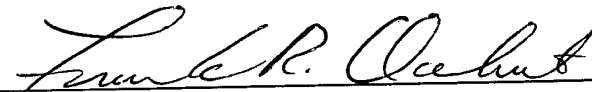
Attorney's Docket No.: 05770-135001 / AMSC-493

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be allowed. Enclosed is a Petition for three Month Extension of Time with a check for \$920.00 for the required fee. Also enclosed is a Notice of Appeal with a check for \$320.00 for the required fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: September 16, 2002


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Version with markings to show changes made

In the claims:

Please cancel claims 2 and 12 without prejudice.

Please amend the following claims:

1. (Twice Amended) A stator for use in a rotating machine, the stator having a longitudinal axis and comprising:
 - a first conductor; and
 - a second conductor wound, in-hand, over the first conductor and along the longitudinal axis, the second conductor electrically isolated from the first conductor along the length of the first and second conductors, wherein the first conductor has an end electrically connected to an end of the second conductor.

3. (Amended) [The stator of claim 2] A stator for use in a rotating machine, the stator having a longitudinal axis and comprising:
 - a first conductor; and
 - a second conductor wound, in-hand, over the first conductor and along the longitudinal axis, the second conductor electrically isolated from the first conductor along the length of the first and second conductors, the first conductor having an end electrically connected to an end of the second conductor, wherein the second conductor is wound over the first conductor to form a first layer of the stator and, at an end region of the stator the position of the first conductor and the second conductor are transposed, and the first conductor is wound over the second conductor to form a second layer of the stator.

11. (Twice Amended) A method of forming a stator for use in a rotating machine, the method comprising winding, in hand, and along a longitudinal axis, a second conductor over a first conductor, the second conductor electrically isolated from the first conductor along the

length of the first and second conductors, and electrically connecting an end of the first conductor to an end of the second conductor.

13. (Twice Amended) [The method of claim 12] A method of forming a stator for use in a rotating machine, the method comprising winding, in hand, and along a longitudinal axis, a second conductor over a first conductor, the second conductor electrically isolated from the first conductor along the length of the first and second conductors, and electrically connecting an end of the first conductor to an end of the second conductor, also including winding the second conductor over the first conductor to form a first layer of the stator; and at an end region of the stator, transposing the position of the first and second conductor and winding the first conductor over the second conductor to form a second layer of the stator.